

Storm Data and Unusual Weather Phenomena - July 2007

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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LAKE MICHIGAN

SHEBOYGAN TO PT WASHINGTON WI COUNTY

1.7 E SHEBOYGAN	07/05/07 16:33 CST		0	Marine Thunderstorm Wind (MG 35 kt)
	07/05/07 16:33 CST		0	43.75N, 87.686W

The Sheboygan C-MAN measured a wind gust of 35 knots (40 mph).

An isolated thunderstorm pulsed to severe levels. The storm was embedded in a broad, deep cyclonic flow. Daytime maximum temperatures were in the mid 80s and dew points around 60.

WIND PT LT WI TO WINTHROP HBR IL COUNTY

2.2 ESE KENOSHA	07/09/07 13:55 CST		0	Marine Thunderstorm Wind (MG 38 kt)
	07/09/07 13:55 CST		0	42.5678N, 87.7901W

The automated Kenosha GLERL site measured a gust of 37.54 knots (44 mph).

Thunderstorms associated with a weak cold front moved out over Lake Michigan. Strong wind gusts accompanied some of the storms.

WIND PT LT WI TO WINTHROP HBR IL COUNTY

2.2 ESE KENOSHA	07/10/07 15:25 CST		0	Marine Thunderstorm Wind (MG 48 kt)
	07/10/07 15:25 CST		0	42.5678N, 87.7901W

The Kenosha GLERL observation site measured a wind gust of 47.51 knots (55 mph).

SHEBOYGAN TO PT WASHINGTON WI COUNTY

1.7 E SHEBOYGAN	07/10/07 15:33 CST		0	Marine Thunderstorm Wind (MG 42 kt)
	07/10/07 15:33 CST		0	43.75N, 87.686W

A 42 knot (48 mph) thunderstorm wind gust was measured at the Sheboygan C-MAN.

Storm associated with a cold front moved out over Lake Michigan. Strong winds were generated by some of the storms.

SHEBOYGAN TO PT WASHINGTON WI COUNTY

1.7 E SHEBOYGAN	07/12/07 16:31 CST		0	Marine Thunderstorm Wind (MG 43 kt)
	07/12/07 16:31 CST		0	43.75N, 87.686W

The Sheboygan C-MAN observation site measured a wind gust of 43 knots (49 mph).

A line of thunderstorms dropped southeast through east-central Wisconsin and out over Lake Michigan and generated strong wind gusts. Theh storms were embedded in deep northwest flow.

WISCONSIN, Southeast

(WI-Z046) MARQUETTE, (WI-Z047) GREEN LAKE, (WI-Z051) FOND DU LAC, (WI-Z052) SHEBOYGAN, (WI-Z056) SAUK, (WI-Z057) COLUMBIA, (WI-Z058) DODGE, (WI-Z059) WASHINGTON, (WI-Z060) OZAUKEE, (WI-Z062) IOWA, (WI-Z063) DANE, (WI-Z064) JEFFERSON, (WI-Z065) WAUKESHA, (WI-Z066) MILWAUKEE, (WI-Z070) WALWORTH, (WI-Z071) RACINE

07/01/07 00:00 CST	0	Drought
07/31/07 23:59 CST	1.07M	

Dry weather in mid to late June, 2007, initially evolved into a D0 drought (abnormally dry) across parts of south-central and southeast Wisconsin in July 2007. By July 24th, the drought intensified to D1 status (moderate) as the jet stream steered storm systems away from the area. D1 conditions remained through the end of the month, and actually continued to about mid-August, 2007. The corn, soybean, and alfalfa (hay) crops planted in poorer or well-drained soils had their growth affected. Yields per acre were expected to be below normal during the fall harvest season. The area affected was north of a line from the Lone Rock (LNR) Aiport (Sauk Co.) to Madison (Dane Co.) to Whitewater (Walworth Co.) to Racine (Racine Co.). What rain did fall fell mostly during three periods: July 3-4th, July 18-19th, and July 26-27th. July monthly rainfall totals were general in the 1 to 3 inch range, with some spotty 3.5 to 4 inch amounts. Specific totals were: 1.40" at Milwaukee Mitchell Field, 1.72" in Sheboygan, 1.96" in La Valle, 2.11" in Portage, 2.21" in Ft. Atkinson, 2.69" at Madison's Truax Field, and 2.77" at the Racine Airport. Normally, rainfall totals such as these are not alarmingly low. However, other than a 7-day wet period in early June, 2007, the months of April-May-June all had below normal rainfall. Consequently, the generally below-normal rainfall amounts in July, 2007, were enough to trigger an official drought. The damage amounts indicated in this July drought event are estimates only for damage to the alfalfa (hay) crop.

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WASHINGTON COUNTY				
KEWASKUM	07/03/07 11:10 CST		50K	Lightning
	07/03/07 11:10 CST		0	43.52N, 88.22W
Lightning struck an 150-year-old building's TV antenna, resulting in an attic fire. Damage was limited to the attic and one apartment.				
WASHINGTON COUNTY				
SLINGER	07/03/07 12:20 CST		10K	Lightning
	07/03/07 12:20 CST		0	43.33N, 88.28W
Lightning struck a home in Slinger, and the resultant fire damaged only the living room and electrical wiring.				
MARQUETTE COUNTY				
2.0 N PACKWAUKEE	07/03/07 17:10 CST		0	Hail (0.75 in)
	07/03/07 17:10 CST		0	43.7989N, 89.45W
MARQUETTE COUNTY				
3.0 NE HARRISVILLE	07/03/07 17:15 CST		50K	Flash Flood (due to Heavy Rain)
	07/03/07 19:30 CST		0	43.9107N, 89.3574W
Slow moving thunderstorm cells trained over the same area northeast of Harrisville near and along CTH E (3 NE Harrisville or about 2.7 miles west-southwest of Budsine), resulting in a flash flood. Water depths on road surfaces reached 2 to 3 feet, and water entered basements of several homes. Damage occurred to personal property in the basements. WSR-88D Doppler radar rainfall estimates were on the order of 3 to 4 inches.				
SAUK COUNTY				
2.0 W LAKE DELTON	07/03/07 17:50 CST		5K	Thunderstorm Wind (EG 52 kt)
	07/03/07 17:50 CST		0	43.58N, 89.8199W
Powerful downburst thundestorm winds gusting to around 52 knots (60 mph) toppled large trees. A couple power-lines came down with tree debris.				
COLUMBIA COUNTY				
7.0 WNW PORTAGE	07/03/07 18:00 CST		5K	Thunderstorm Wind (EG 52 kt)
	07/03/07 18:00 CST		0	43.5887N, 89.579W
Powerful downburst thundestorm winds gusting to around 52 knots (60 mph) toppled large trees. A couple power-lines came down with tree debris.				
GREEN LAKE COUNTY				
1.0 NE GREEN LAKE	07/03/07 18:04 CST		0	Thunderstorm Wind (EG 52 kt)
	07/03/07 18:04 CST		0	43.8402N, 88.9358W
Powerful downburst winds gusting to around 52 knots (60 mph) toppled several large trees.				
SAUK COUNTY				
6.0 WNW SPRING GREEN	07/03/07 18:36 CST		5K	Thunderstorm Wind (MG 52 kt)
3.0 W SPRING GREEN	07/03/07 18:40 CST		0	43.2132N, 90.1799W ~ 43.18N, 90.1295W
Powerful downburst thundestorm winds gusting to a measured 52 knots (60 mph) gust at the Lone Rock Airport (LNR) ASOS unit toppled large trees. A couple power-lines came down with tree debris.				
DODGE COUNTY				
3.0 SE RANDOLPH	07/03/07 18:37 CST		0	Thunderstorm Wind (EG 52 kt)
	07/03/07 18:37 CST		0	43.4993N, 88.9577W
Powerful downburst thundestorm winds gusting to around 52 knots (60 ph) toppled several large trees.				
IOWA COUNTY				
5.0 W ARENA	07/03/07 18:45 CST		25K	Thunderstorm Wind (EG 56 kt)
	07/03/07 18:45 CST		0	43.17N, 90.0191W
Powerful downburst thundestorm winds gusting to around 52 knots (60 mph) toppled large trees. Seveal power-lines came down with tree debris.				
IOWA COUNTY				

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3.5 S BARNEVELD	07/03/07 19:10 CST		0.20M	Thunderstorm Wind (EG 65 kt)
	07/03/07 19:10 CST		0	42.9694N, 89.9W
Powerful downburst thundestorm winds gusting to around 65 knots (75 mph) toppled hundreds of large trees in a forested area. Several power-lines came down with tree debris. One large tree fell onto a vehicle. Two small sheds were destroyed by the winds, and one home sustained window damage.				
DANE COUNTY				
SUN PRAIRIE	07/03/07 19:40 CST		20K	Thunderstorm Wind (EG 56 kt)
	07/03/07 19:40 CST		0	43.18N, 89.2W
Powerful downburst thundestorm winds gusting to around 56 knots (65 mph) toppled several large trees. Several power-lines came down with tree debris.				
IOWA COUNTY				
3.0 N REWEY	07/03/07 19:40 CST		25K	Thunderstorm Wind (EG 56 kt)
	07/03/07 19:40 CST		0	42.8934N, 90.4W
Powerful downburst thundestorm winds gusting to around 52 knots (60 mph) toppled large trees. Seveal power-lines came down with tree debris.				
LAFAYETTE COUNTY				
3.0 N ARGYLE	07/03/07 19:45 CST		5K	Thunderstorm Wind (EG 56 kt)
	07/03/07 19:45 CST		0	42.7434N, 89.87W
Powerful downburst thundestorm winds gusting to around 52 knots (60 mph) toppled several large trees and a couple power-lines came down due to tree debris.				
GREEN COUNTY				
2.0 NW JORDAN ALBANY	07/03/07 19:55 CST		0	Thunderstorm Wind (EG 52 kt)
	07/03/07 19:55 CST		0	42.6705N, 89.8078W ~ 42.7N, 89.43W
Powerful downburst thundestorm winds gusting to around 52 knots (60 mph) toppled several large trees.				
ROCK COUNTY				
JANESVILLE	07/03/07 23:30 CST		0.28M	Lightning
	07/03/07 23:30 CST		0	42.68N, 89.02W
A 2-story Janesville home was destroyed by a fire after lightning struck it.				
A mesoscale convective system over the Dakotas moved east-southeast through Wisconsin. It was aided by a strong short wave trough aloft and a cold front dropping southeast. Short bowing segments of storms generated damaging winds, large hail, and heavy rains that led to localize flash flooding.				
OZAUKEE COUNTY				
2.0 S BELGIUM	07/05/07 16:43 CST		0	Hail (0.75 in)
	07/05/07 16:43 CST		0	43.4711N, 87.85W
An isolated thunderstorm pulsed to severe limits. The storm was embedded in broad, deep, cyclonic flow. Daytime maximum temperatures were in the mid 80s and dewpoints around 60.				
DODGE COUNTY				
2.5 SW MAYVILLE	07/09/07 02:15 CST		60K	Lightning
	07/09/07 02:15 CST		0	43.4744N, 88.5852W
Lightning struck a barn on Morris Rd., resulting in a fire that destroyed the structure, as well as a 1994 vehicle parked inside. An adjacent small shed also had a small fire that was quickly extinguished.				
JEFFERSON COUNTY				
0.2 NE WATERLOO	07/09/07 09:50 CST		0	Hail (1.00 in)
	07/09/07 09:52 CST		0	43.182N, 88.9772W
WASHINGTON COUNTY				
KOHLSVILLE	07/09/07 10:17 CST		0	Thunderstorm Wind (EG 52 kt)
	07/09/07 10:17 CST		0	43.47N, 88.32W
Powerful thunderstorm wind gusts to around 52 knots (60 mph) toppled several large trees.				

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DODGE COUNTY				
RUBICON	07/09/07 10:18 CST		0	Thunderstorm Wind (EG 52 kt)
	07/09/07 10:18 CST		0	43.33N, 88.47W
Powerful thunderstorm wind gusts to around 52 knots (60 mph) toppled several large trees.				
WAUKESHA COUNTY				
4.0 N HARTLAND	07/09/07 10:31 CST		0	Hail (0.75 in)
	07/09/07 10:31 CST		0	43.1578N, 88.35W
ROCK COUNTY				
5.0 NE MILTON	07/09/07 12:00 CST		0	Hail (1.00 in)
	07/09/07 12:00 CST		0	42.8211N, 88.8803W
WALWORTH COUNTY				
WHITEWATER	07/09/07 12:02 CST		0	Hail (0.75 in)
	07/09/07 12:02 CST		0	42.83N, 88.73W
JEFFERSON COUNTY				
4.0 SE COLD SPG	07/09/07 12:03 CST		0	Hail (0.75 in)
	07/09/07 12:03 CST		0	42.8391N, 88.7242W
WALWORTH COUNTY				
2.5 NE DELAVAN MILLARD	07/09/07 12:40 CST		0	Thunderstorm Wind (EG 52 kt)
	07/09/07 12:40 CST		0	42.6556N, 88.5953W ~ 42.73N, 88.62W
Powerful thunderstorm winds toppled several large trees.				
WALWORTH COUNTY				
SPRING PRAIRIE	07/09/07 12:56 CST		0	Hail (0.88 in)
	07/09/07 12:56 CST		0	42.68N, 88.4W
Thunderstorm wind gusts to about 39 knots (45 mph) also noted.				
KENOSHA COUNTY				
TWIN LAKES	07/09/07 13:05 CST		30K	Thunderstorm Wind (EG 52 kt)
	07/09/07 13:05 CST		0	42.53N, 88.25W
Powerful thunderstorm gusts to around 52 knots (60 mph) toppled large trees and tree branches. The tree debris damage a home's porch and garage, and a car and boat.				
RACINE COUNTY				
BURLINGTON	07/09/07 13:05 CST		0	Hail (1.00 in)
	07/09/07 13:05 CST		0	42.67N, 88.27W
WALWORTH COUNTY				
WILLIAMS BAY	07/09/07 13:05 CST		0	Hail (1.00 in)
	07/09/07 13:05 CST		0	42.58N, 88.53W
KENOSHA COUNTY				
KENOSHA MUNI ARPT KENOSHA	07/09/07 13:43 CST		75K	Thunderstorm Wind (MG 50 kt)
	07/09/07 14:00 CST		0	42.6N, 87.92W ~ 42.58N, 87.83W

Powerful thunderstorm winds toppled many trees. The hardest-hit area in the city of Kenosha was centered around 30th Ave. and 75th St. where a church steeple was knocked over by the winds. At least 4 vehicles were damaged by tree debris. Additionally, minor urban-type flooding (water up to the curb) occurred for about 30 minutes on some roads in the city of Kenosha. The gust was measured at the Kenosha Airport ASOS site, although a higher gust was possible where the church steeple was toppled. About a dozen power-lines came down on the south side of the city of Kenosha due to tree debris, leaving about 3600 customers without power.

A weak cold front moved southeast through southern Wisconsin and several thunderstorms along the front became severe. Large hail up to 1 inch in diameter and powerful wind gusts to around 52 knots (60 mph) were produced. Dewpoints in the upper 60s to lower 70s resulted in CAPE values of 1500-2000, which was sufficient for severe storm development.

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WALWORTH COUNTY				
1.0 E GENOA CITY	07/10/07 14:52 CST		0	Thunderstorm Wind (EG 50 kt)
	07/10/07 14:52 CST		0	42.5N, 88.3104W
Powerful thunderstorm wind gusts to 50 knots (58 mph) toppled several large trees east of Genoa City.				
KENOSHA COUNTY				
4.0 SW BRISTOL BRISTOL	07/10/07 15:09 CST		0	Thunderstorm Wind (EG 50 kt)
	07/10/07 15:13 CST		0	42.5091N, 88.1055W ~ 42.55N, 88.05W
Powerful thunderstorm wind gusts to 50 knots (58 mph) toppled several large trees in the Bristol area.				
KENOSHA COUNTY				
2.8 SW SOMERS	07/10/07 15:10 CST		3K	Lightning
	07/10/07 15:10 CST		0	42.6214N, 87.9389W
Lightning struck a retail store on a frontage road adjacent to Interstate 94, resulting in a minor fire.				
Yet another weak cold front moved southeast through southern Wisconsin with double-structure in terms of lines of associated storms. The first line was solid while the second line had scattered storms. Some of the storms briefly pulsed to severe limits with powerful wind gusts.				
LAFAYETTE COUNTY				
LESLIE	07/17/07 20:48 CST		0	Hail (0.75 in)
	07/17/07 20:48 CST		0	42.77N, 90.37W
LAFAYETTE COUNTY				
2.0 W WOODFORD	07/17/07 22:02 CST		0	Hail (0.75 in)
	07/17/07 22:02 CST		0	42.65N, 89.9093W
Several clusters of storms embedded in west-northwest flow aloft moved across southwestern Wisconsin. Some of the storms briefly pulsed to severe limits and generated large hail. WSR-88D Doppler radar indicated that reflectivity values reached 65-70 dBZ.				
JEFFERSON COUNTY				
2.5 NE FARMINGTON	07/26/07 04:35 CST		0	Heavy Rain
	07/26/07 08:10 CST		0	43.1056N, 88.635W
Three rounds of thunderstorms, spread out over about 3.5 hours, visited the same area northeast of Farmington during the morning hours, resulting in 4.6 inches of rain at one location. The heavy rains generated water depths of 1 foot in backyards, while roads only had a few inches of water cover. Several backyards in this area resembled small inland lakes for a couple hours.				
JEFFERSON COUNTY				
2.5 NE FARMINGTON	07/26/07 04:58 CST		1K	Thunderstorm Wind (EG 43 kt)
	07/26/07 04:58 CST		0	43.1056N, 88.635W
Gusty winds up to an estimated 43 knots (50 mph) accompanied heavy downpours of rain northeast of Farmington. Lawn furniture was over-turned, a wooden garden structure was damaged, and a light pole was pushed over.				
DODGE COUNTY				
BEAVER DAM	07/26/07 08:05 CST		25K	Flash Flood (due to Heavy Rain)
	07/26/07 10:30 CST		0	43.47N, 88.83W
Heavy rains measured at 3.80 inches within 1 hour and 50 minutes resulted in flash flooding in and near the city of Beaver Dam. Several cars stalled in water over roads, and one driver had to be rescued by first responders. Some of the vehicles sustained water damage. Water depths on some streets reached 2 to 4 feet.				
OZAUKEE COUNTY				
FREDONIA	07/26/07 20:00 CST		0.10M	Flash Flood (due to Heavy Rain)
	07/26/07 22:30 CST		0	43.47N, 87.95W
Heavy rains, measured at 4.5 to 5.0 inches within a couple hours, resulted in a flash flood in and near the village of Fredonia. Water depths on roads reached 1 to 3 feet. Some residents mentioned that some roads had never flooded until this event. Several gravel driveways were washed out as well as culverts.				

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A series of thunderstorm cells moved south through southern Wisconsin during the mid-morning hours on July 26th. Some of these cells trained over the same area, resulting in flash flooding. During the afternoon and evening hours, the activity regenerated and shifted east to the lakeshore counties and over Lake Michigan. In one case, a west-east line of storms over Lake Michigan (east of Milwaukee to Kenosha from 1800 to 2000CST) possessed WSR-88D reflectivity values of 65-70 dBZ and hail algorithm values of 2 to 3 inches for possible hail diameter. However, no large hail reports were received from boaters that might have been on Lake Michigan. Additionally, radar showed a low-level velocity couplet on the west end of the line of storms. This velocity couplet suggested that a waterspout may have occurred. However, there were no confirming reports from the Coast Guard.